

TWO NEW SPECIES OF *OBSOLETA* AND *MESOMELA* GROUPS OF *TENTHREDO* LINNAEUS (HYMENOPTERA, TENTHREDINIDAE) FROM CHINA

LIU Meng-Meng, LI Ze-Jian, WEI Mei-Cai*

Lab of Insect Systematics and Evolutionary Biology, Central South University of Forestry and Technology, Changsha 410000, China; E-mail: liummy2012@163.com

Abstract Two new species of *obsoleta-mesomela* group of *Tenthredo* from China are described: *Tenthredo paraobsoleta* Wei et Liu, sp. nov. and *Tenthredo pseudomesomela* Wei et Li, sp. nov. The former belongs to *obsoleta* subgroup and the latter belongs to *mesomela* subgroup. The type specimens of two new species are deposited in the Insect Collection of Central South University of Forestry and Technology, Changsha, Hunan, China.

Tenthredo paraobsoleta Wei et Liu, sp. nov. (Figs 1–12)

Body length 11.5–12.5 mm in female and 10–12 mm in male. This new species is a member of *obsoleta* subgroup of *Tenthredo obsoleta-mesomela* species group as shown by the body mainly black dorsally and black and green laterally, and the supraantennal tubercles narrow and strongly elevated with the posterior end abruptly cut off from frontal walls. It is close to *T. obsoleta* Klug, 1817 but differs from the latter in the mesepisternum distinctly microsculptured and weakly shiny; the dorsal side of head densely rugose, almost mat; the distance between the 5th and 6th serrulae as broad as 5th serrula; the middle serrulae each with 1 proximal and 8 distal teeth (in *Tenthredo obsoleta* the mesepisternum hardly microsculptured and strongly shiny; the temple weakly microsculptured, strongly shiny; the distance between the 5th and 6th serrulae clearly shorter than 5th serrula; the middle serrulae each with 1 proximal and 13–14 distal teeth).

Holotype ♀, Fenglin Temple, Mt. Wutai (39°01'N, 113°32'E; alt. 2 230 m), Shanxi Province, 3 July 2009, WANG Xiao-Hua leg. Paratypes: 1 ♂, Xinhai hotel, Mt. Wutai (38°59'N, 113°34'E; alt. 1 670 m), Shanxi Province, 20 July 2009, YAO Ming-Can leg.; 1 ♂, Fomudong, Mt. Wutai (38°56'N, 113°34'E; alt. 1 630 m), Shanxi Province, 2 July 2009, YAO Ming-Can leg.; 4 ♂♂,

Hebei Village, Mt. Wutai (39°N, 113°33'E; alt. 1 845 m), Shanxi Province, 3 July 2009, YAO Ming-Can and WANG Xiao-Hua leg.; 1 ♀, Shunwangping, Mt. Li (35°25'N, 111°57'E; alt. 2 060 m), Shanxi Province, 9 July 2008, FEI Han-Lan leg.; 2 ♀♀, 1 ♂, Xiazhuang Village, Mt. Wutai (38°59'N, 113°31'E; alt. 1 800 m), Shanxi Province, 4 July 2009, WANG Xiao-Hua and YAO Ming-Can leg.; 1 ♀, 4 ♂♂, Fenglin Temple, Mt. Wutai (39°01'N, 113°32'E; alt. 2 230 m), Shanxi Province, 3 July 2009, WANG Xiao-Hua leg.; 13 ♀♀, 6 ♂♂, Xigoumen, Mt. Xiaowutai (39°59'N, 115°01'E; alt. 1 607 m), Hebei Province, 21–23 July 2008, LI Ze-Jian leg.; 1 ♀, 1 ♂, Xigoumen, Mt. Xiaowutai (39°59'N, 115°01'E; alt. 1 607 m), Hebei Province, 26 July 2008, LI Ze-Jian leg.; 1 ♀, Jinhekou, alt. 1 800 m, Yu County, Hebei Province, 30 July 2000, BU Wen-Jun leg.; 10 ♀♀, 3 ♂♂, Xigoumen, Mt. Xiaowutai (39°59'N, 115°01'E; alt. 1 607 m), Hebei Province, 15–16 July 2007, LI Ze-Jian leg.; 1 ♀, 2 ♂♂, Donggoumen, Mt. Xiaowutai (39°59'N, 115°02'E; alt. 1 325 m), Hebei Province, 17–18 July 2007, LI Ze-Jian leg.; 1 ♂, Donggouyingdi, Mt. Xiaowutai (39°58'N, 115°02'E; alt. 1 740 m), Hebei Province, 19 July 2007, LI Ze-Jian leg.; 6 ♀♀, 3 ♂♂, Chiyabu, Mt. Xiaowutai (39°59'N, 115°01'E; alt. 1 485 m), Hebei Province, 14–15 July 2007, LI Ze-Jian leg.; 13 ♀♀, 5 ♂♂, Chiyabu, Mt. Xiaowutai (39°59'N, 115°01'E; alt. 1 485 m), Hebei Province, 22–25 July 2008, LI Ze-Jian leg.; 1 ♀, 1 ♂, Chiyabu, Mt. Xiaowutai (39°59'N, 115°01'E; alt. 1 485 m), Hebei Province, 23 June 2009, WANG Xiao-Hua leg.; 3 ♀♀, 1 ♂, Dongtai, Mt. Xiaowutai (39°56'N, 115°02'E; alt. 2 875 m), Hebei Province, 24 June 2009, WANG Xiao-Hua leg.; 1 ♀, Damuchang, Mt. Xiaowutai (40°02'N, 115°20'E; alt. 1 455 m), Hebei Province, 26 June 2009, WANG Xiao-Hua leg.; 1 ♀, 2 ♂♂, Mt.

* Corresponding author, E-mail: weimc@126.com

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Dongling, Mt. Xiaowutai (40°02'N, 115°27'E; alt. 1 850 m), Hebei Province, 28 June 2009, WANG Xiao-Hua leg.; 2 ♀♀, 1 ♂, Shanjankou, Mt. Xiaowutai (39°58'N, 115°04'E; alt. 1 900 m), Hebei Province, 24 June 2009, WANG Xiao-Hua leg.; 1 ♀, Heishuihe, Mt. Baxian (40°11'N, 117°33'E; alt. 542 m), Tianjin City, 20 June 2007, LI Ze-Jian leg.; 5 ♀♀, 7 ♂♂, Mt. Shennongjia, alt. 2 800 m, Hubei Province, 22 July 2003, JIANG Ji-Gang leg.; 2 ♀♀, Heshangpu, Mt. Liupan (35°23'N, 106°20'E; alt. 1 945 m), Ningxia, 21 June 2008, LIU Fei leg.; 2 ♂♂, Xixia, Mt. Liupan (35°29'N, 106°18'E; alt. 1 974 m), Ningxia, 2 July 2008, LIU Fei leg.; 12 ♀♀, 2 ♂♂, Guamagou, Mt. Liupan (35°23'N, 106°20'E; alt. 1 945 m), Ningxia, 7–8 July 2008, LIU Fei leg.; 4 ♀♀, 1 ♂, Erlonghe, Mt. Liupan (35°23'N, 106°20'E; alt. 1 945 m), Ningxia, 5 July 2008, LIU Fei leg.; 1 ♀, Fengtai, Mt. Liupan (35°23'N, 106°20'E; alt. 1 945 m), Ningxia, 24 June 2008, LIU Fei leg.; 1 ♀, Longtan, Mt. Liupan (35°23'N, 106°20'E; alt. 1 945 m), Ningxia, 3 July 2008, LIU Fei leg.; 1 ♂, Mt. Liupan, alt. 2 300 m, 15 July 1980, LI Fa-Sheng leg.; 1 ♀, 1 ♂, Labuleng Temple (35°12'N, 102°31'E; alt. 2 920 m), Xiahe County, Gansu Province, 12 July 2010, LI Ze-Jian and WANG Xiao-Hua leg.; 1 ♀, Wushaoling Forest Farm, Tianzhu County, Gansu Province, 16 July 2007, TANG Ming-Jun leg.; 2 ♀♀, 2 ♂♂, Min County, 3 July 1982, collector unknown; 1 ♂, Balipu, Lintao County, Gansu Province, 9 July 1982, ZHANG Sheng leg.; 1 ♀, Longgou, Mt. Qilian, Gansu Province, 23 June 2004, WANG Feng leg.; 1 ♂, Yuantou, Jialingjiang (34°13'N, 106°59'E; alt. 1 617 m), Shaanxi Province, 14 July 2007, ZHU Xun leg.; 1 ♀, 1 ♂, Mt. Min, alt. 3 000 m, Sichuan Province, 16 July 2001, WEI Mei-Cai leg.

Tenthredo pseudomesomela Wei et Li, sp. nov. (Figs 13–24)

Body length 12–13 mm in female and 11–12 mm in male. This new species is a member of *mesomela* subgroup of *Tenthredo obsoleta-mesomela* species group as shown by the body mainly black dorsally and black and green laterally, and the supra antennal

tubercles weakly elevated with the posterior end shallowly but distinctly cut off from frontal walls. It is close to *Tenthredo mesomela* (L., 1758) but differs from it in the mesepisternum black with two narrow green stripes, the middle black stripe about 2 times as broad as the posterior green stripe; the mesosternum black with a small green middle spot; the black part of mesepisternum distinctly microsculptured, weakly shiny; the dorsal side of head distinctly rugose, weakly shiny; the ventral incision of valvifers very broad and shallow (in *Tenthredo mesomela* the mesepisternum green with narrow middle black stripe which is about 0.5 times as broad as the posterior green stripe; the mesosternum entirely yellow green; the mesepisternum hardly microsculptured, strongly shiny; the temple indistinctly microsculptured, strongly shiny; the ventral incision of valvifers narrow and deep).

Holotype ♀, Waitaofeng, Mt. Wuling (40°35'N, 117°28'E; alt. 2 067 m), Hebei Province, 16 June 2007, LI Ze-Jian leg. Paratypes: 2 ♂♂, Waitaofeng, Mt. Wuling (40°35'N, 117°28'E; alt. 2 067 m), Hebei Province, 16 June 2007, LI Ze-Jian leg.; 1 ♀, Mt. Dongling, Mt. Xiaowutai (40°02'N, 115°27'E; alt. 1 850 m), Hebei Province, 28 June 2009, WANG Xiao-Hua leg.; 2 ♀♀, Chiyabu, Mt. Xiaowutai (39°59'N, 115°01'E; alt. 1 485 m), Hebei Province, 25 July 2008, LI Ze-Jian leg.; 3 ♀♀, Xigoumen, Mt. Xiaowutai (39°59'N, 115°01'E; alt. 1 607 m), Hebei Province, 22 July 2008, LI Ze-Jian leg.; 1 ♂, Huangguman, Mt. Li (35°21'N, 111°56'E; alt. 2 090 m), Shanxi Province, 12 June 2009, WANG Xiao-Hua leg.; 1 ♀, 1 ♂, Huangguman, Mt. Li (35°21'N, 111°56'E; alt. 2 090 m), Shanxi Province, 13 June 2009, WANG Xiao-Hua leg.; 1 ♀, Xigoumen, Mt. Xiaowutai (39°59'N, 115°01'E; alt. 1 607 m), Hebei Province, 23 July 2008, LI Ze-Jian leg.; 1 ♀, Chiyabu, Mt. Xiaowutai (39°59'N, 115°01'E; alt. 1 485 m), Hebei Province, 24 July 2008, LI Ze-Jian leg.; 1 ♀, Xigoumen, Mt. Xiaowutai (39°59'N, 115°01'E; alt. 1 607 m), Hebei Province, 22 July 2008, LI Ze-Jian leg.; 1 ♀, Mt. Wuling, alt. 1 700 m, Xinglong County, Hebei Province, 22 June 1995, LV Nan leg.

Key words Hymenoptera, Tenthredinidae, *Tenthredo*, new species, China.

中国叶蜂属 (膜翅目, 叶蜂科) *OBSOLETA-MESOMELA* 种团二新种

刘萌萌 李泽建 魏美才*

中南林业科技大学昆虫系统和进化生物学实验室 长沙 410004, E-mail: liummy2012@163.com

摘要 记述采自中国境内叶蜂属 *obsoleta-mesomela* 种团 2 新种: 粗纹窄突叶蜂 *Tenthredo paraobsoleta* Wei et Liu, sp. nov. 和粗纹低突叶蜂 *Tenthredo pseudomesomela* Wei et Li, sp. nov.。前者属于 *obsoleta* 亚种团, 后者属于 *mesomela* 亚种团。新种模式标本保存于湖南长沙中南林业科技大学昆虫模式标本室。

关键词 膜翅目, 叶蜂科, 叶蜂属, 新种, 中国。

中图分类号 Q969.542.6

叶蜂属 *Tenthredo* L. 隶属于叶蜂科 Tenthredinidae、叶蜂亚科 Tenthredininae、叶蜂族 Tenthredinini。该属世界已知种类已经超过 1 000 种, 是叶蜂科第 1 大属 (Taeger et al., 2010)。目前, 中国已经报道叶蜂属种类 298 种 (Wei, 2006; Wei et al., 2006; Wei & Nie, 2006; Niu & Wei, 2008; Yan et al., 2008; Wei & Niu, 2009; Haris, 2009; Zhao et al., 2010; Niu & Wei, 2011; Yan et al., 2012)。其中, *obsoleta-mesomela* 种团是叶蜂属内的种团之一, 包括 *obsoleta* 和 *mesomela* 2 个亚种团。在华北叶蜂区系调查中, 发现该属 *obsoleta-mesomela* 种团 2 新种: 粗纹窄突叶蜂 *Tenthredo paraobsoleta* Wei et Liu, sp. nov. 和粗纹低突叶蜂 *Tenthredo pseudomesomela* Wei et Li, sp. nov.。前者属于 *obsoleta* 亚种团, 后者属于 *mesomela* 亚种团。

新种模式标本保存于湖南长沙中南林业科技大学昆虫模式标本室 (CSCS)。

1 粗纹窄突叶蜂, 新种 *Tenthredo paraobsoleta* Wei et Liu, sp. nov. (图 1~12)

雌虫 体长 11.5~12.5 mm (图 1)。体和足黑色; 口须、上颚基半部、上唇、唇基除基部中央的黑斑外、唇基上区上半部、触角窝上突、外眶下部大斑、前胸背板后缘宽斑、翅基片、中胸小盾片前部 3/4、小盾片附片、后胸小盾片前半部及侧脊、后胸后背片前部约 1/3、中胸前侧片前上部小斑及后下部窄条斑、中胸后侧片后缘狭边、后胸前侧片大部、后胸后侧片后缘、腹部各节背板缘折和腹板全部、第 1 背板后缘窄边、第 10 背板端缘绿色, 锯鞘端背侧黑色; 后胸淡膜区黄白色; 足黄绿色, 前足基节后侧不规则条斑、中足基节前侧宽条斑、后足基节后侧全部及前外侧条斑、前足转节后侧、中后足转节大部、前中足股节至跗节背侧条斑、后足股节至跗节大部黑色, 后足腹侧淡色条斑狭窄; 上颚基半部、上唇和唇基的体毛银色, 锯鞘毛暗褐色,

虫体其余部分的体毛黑色。翅面淡烟褐色半透明, 无明显烟斑, 翅痣和翅脉黑褐色。

头部背侧 (图 3) 大部暗淡, 无光泽, 刻点浅弱、稀疏, 刻纹十分细密; 内眶中下部、后眶具弱光泽, 刻纹稍弱; 触角窝上突、中窝底部、单眼后沟和唇基光泽较强, 无明显刻纹; 中胸背板无光泽, 刻点较头部细小、密集, 刻点间刻纹致密; 前胸背板后角及中胸小盾片具较明显光泽, 刻点和刻纹较细弱; 小盾片附片光亮, 刻点浅弱, 刻纹不明显; 后胸小盾片光泽弱, 刻点与刻纹较明显; 中胸前侧片上部光泽微弱, 无明显刻点, 具较粗密刻纹, 中下部刻纹致密, 无光泽; 中胸后上侧片凹部光泽较强, 无明显刻点, 刻纹细弱; 中胸前侧片后缘和中胸后下侧片前缘狭窄区域光滑, 无刻点与刻纹, 光泽强; 中胸后下侧片大部区域具少许浅弱刻纹; 后胸前侧片光泽较明显, 刻纹细弱, 后胸后侧片大部光滑, 刻纹微弱, 光泽较强 (图 6)。腹部各节背板光泽微弱, 刻点细弱、模糊, 刻纹粗密; 锯鞘端的侧面散布细弱刻纹, 光泽较弱。

头部背侧细毛长约 1.5 倍于侧单眼直径, 中胸背板侧叶细毛长约 0.7 倍于侧单眼直径, 小盾片细毛和中胸前侧片上部细毛长约 1.3 倍于侧单眼直径。上唇宽大于长, 端部圆钝; 唇基平坦, 基部显著宽于复眼下缘间距, 前缘缺口宽度约等于唇基侧叶宽, 深度 0.3 倍于唇基长, 侧叶端缘圆钝 (图 4); 颞眼距约 0.75 倍于中单眼直径; 复眼内缘向下强烈收敛, 间距约 0.55 倍于复眼高; 触角窝上突强烈隆起, 高等于宽, 后端陡峭, 突然中断, 背面长度约 1.5 倍于自身高度, 0.6 倍于额区长, 间距等于自身宽度; 单眼中沟细深, 单眼后沟宽; 单眼后区微弱隆起, 宽约 1.65 倍于长, 无中纵脊, 侧沟较细, 明显弯曲, 向后显著分歧; 背面观上眶约 0.85 倍于复眼长, 两侧缘向后微弱收缩 (图 3); 后头脊较低, 全缘式, 无褶皱。触角粗短丝状, 约 0.8 倍于头胸部

* 通讯作者, E-mail: weimc@126.com



图 1~12 粗纹窄突叶蜂, 新种 *Tentredo paraobsoleta* Wei et Liu, sp. nov.

1, 3~6. 雌 (female) 2, 8. 雄 (male) 1~2. 成虫背面观 (adult, dorsal view) 3~4, 8. 头部 (head) 3. 背面观 (dorsal view) 4, 8. 前面观 (front view) 5. 触角 (antenna) 6. 中胸侧板和后胸侧板 (mesopleuron and metapleuron) 7. 锯鞘侧面观 (ovipositor sheath, lateral view) 9. 锯腹片 (lancet) 10. 锯腹片第 5~7 锯刃 (5th - 7th serrulae) 11. 生殖铗 (gonoforceps) 12. 阴茎瓣 (penis valve) 比例尺 (scale bars): 1~2 = 2 mm, 9, 11~12 = 200 μ m, 10 = 50 μ m

之和, 约0.67倍于腹部长; 第2节长约1.2倍于宽, 第3节约1.6倍于第4节长, 约0.83倍于第4~5节之和, 鞭节中端部不膨大, 端部4节短缩, 第8节长宽比等于1.3 (图5)。中胸小盾片圆钝隆起, 无中纵脊和顶点, 后缘无明显横脊, 小盾片顶面约高于中胸背板平面; 附片具低短但明显的中纵脊; 后胸小盾片无中纵脊; 中胸前侧片中部低钝角状隆起, 无腹刺突; 后胸后侧片后缘圆钝, 无附片; 淡膜区间距约4倍于淡膜区宽。后足胫节0.9倍于后足跗节长, 内端距约0.6倍于基跗节长, 基跗节不加粗, 约0.8倍于其后4跗分节之和; 爪基片较短钝, 但明显, 内齿0.8倍于外齿长。锯鞘1.25倍于后足基跗节长, 锯鞘端1.25倍于鞘基长, 侧面观锯鞘明显弧形弯曲, 锯鞘端背腹缘接近平行, 端缘圆钝 (图7)。前翅cu-a脉位于1M室基部0.35处, 2r脉交于2Rs室背缘中部外侧, 2Rs室明显长于1Rs室; 后翅臀室无柄式。锯鞘毛较直, 少数微弱弯曲, 两侧多数细毛夹角约为80°。锯腹片较窄长 (图9), 15锯齿, 锯齿明显倾斜, 较突出, 中部锯齿多具1个内侧亚基齿和8个外侧亚基齿, 刃齿清晰, 节缝刺毛带十分狭窄, 刺毛稀疏, 基部起第5~7锯齿 (图10)。

雄虫 体长10~11 mm (图2), 体色与构造类似雌虫, 但中胸前侧片前侧具绿色纵条斑, 胸部腹板大部、各足转节腹侧大部绿色, 腹部3、4背板后缘具狭窄绿色斑纹; 颞眼距0.4倍于侧单眼直径, 复眼下缘间距0.4倍于复眼高 (图8); 后足胫节0.8倍于跗节长; 下生殖板长稍大于宽, 端缘圆弧形突出; 抱器长大于宽, 中部稍宽于两端, 端缘圆弧形 (图11); 阴茎瓣 (图12)。

正模 ♀, 山西五台山风林寺 (39°01'N, 113°32'E; 海拔2 230 m), 2009-07-03, 王晓华采。副模: 1 ♂, 山西五台山鑫海宾馆 (38°59'N, 113°34'E; 海拔1 670 m), 2009-07-20, 姚明灿采; 1 ♂, 山西五台山佛母洞 (38°56'N, 113°34'E; 海拔1 630 m), 2009-07-02, 姚明灿采; 4 ♂♂, 山西五台山河北村 (39°N, 113°33'E; 海拔1 845 m), 2009-07-03, 姚明灿、王晓华采; 1 ♀, 山西历山舜王坪 (35°25'N, 111°57'E; 海拔2 060 m), 2008-07-09, 费汉槐采; 2 ♀♀, 1 ♂, 山西五台山下庄村 (38°59'N, 113°31'E; 海拔1 800 m), 2009-07-04, 王晓华、姚明灿采; 1 ♀, 4 ♂♂, 山西五台山风林寺 (39°01'N, 113°32'E; 海拔2 230 m), 2009-07-03, 王晓华采; 13 ♀♀, 6 ♂♂, 河北小五台山西沟门 (39°59'N, 115°01'E; 海拔1 607 m), 2008-07-21~23, 李泽建采; 1 ♀, 1 ♂, 河北小五台山西沟门 (39°59'N,

115°01'E; 海拔1 607 m), 2008-07-26, 李泽建采; 1 ♀, 河北蔚县金河口, 海拔1 800 m, 2000-07-30, 卜文俊采; 10 ♀♀, 3 ♂♂, 河北小五台山西沟门 (39°59'N, 115°01'E; 海拔1 607 m), 2007-07-15~16, 李泽建采; 1 ♀, 2 ♂♂, 河北小五台山东沟门 (39°59'N, 115°02'E; 海拔1 325 m), 2007-07-17~18, 李泽建采; 1 ♂, 河北小五台山东沟营地 (39°58'N, 115°02'E; 海拔1 740 m), 2007-07-19, 李泽建采; 6 ♀♀, 3 ♂♂, 河北小五台山赤崖堡 (39°59'N, 115°01'E; 海拔1 485 m), 2007-07-14~15, 李泽建采; 13 ♀♀, 5 ♂♂, 河北小五台山赤崖堡 (39°59'N, 115°01'E; 海拔1 485 m), 2008-07-22~25, 李泽建采; 1 ♀, 1 ♂, 河北小五台山赤崖堡 (39°59'N, 115°02'E; 海拔1 400 m), 2009-06-23, 王晓华采; 3 ♀♀, 1 ♂, 河北小五台山东台 (39°56'N, 115°02'E; 海拔2 875 m), 2009-06-24, 王晓华采; 1 ♀, 河北小五台大木厂 (40°02'N, 115°20'E; 海拔1 455 m), 2009-06-26, 王晓华采; 1 ♀, 2 ♂♂, 河北小五台东灵山 (40°02'N, 115°27'E; 海拔1 850 m), 2009-06-28, 王晓华采; 2 ♀♀, 1 ♂, 河北小五台山洞口 (39°58'N, 115°04'E; 海拔1 900 m), 2009-06-24, 王晓华采; 1 ♀, 天津八仙山黑水河 (40°11'N, 117°33'E; 海拔542 m), 2007-06-20, 李泽建采; 5 ♀♀, 7 ♂♂, 湖北神农架, 海拔2 800 m, 2003-07-22, 姜吉刚采; 2 ♀♀, 宁夏六盘山和尚铺 (35°23'N, 106°20'E; 海拔1 945 m), 2008-06-21, 刘飞采; 2 ♂♂, 宁夏六盘山西峡 (35°29'N, 106°18'E; 海拔1 974 m), 2008-07-02, 刘飞采; 12 ♀♀, 2 ♂♂, 宁夏六盘山挂马沟 (35°23'N, 106°20'E; 海拔1 945 m), 2008-07-07~08, 刘飞采; 4 ♀♀, 1 ♂, 宁夏六盘山二龙河 (35°23'N, 106°20'E; 海拔1 945 m), 2008-07-05, 刘飞采; 1 ♀, 宁夏六盘山峰台 (35°23'N, 106°20'E; 海拔1 945 m), 2008-06-24, 刘飞采; 1 ♀, 宁夏六盘山龙潭 (35°23'N, 106°20'E; 海拔1 945 m), 2008-07-03, 刘飞采; 1 ♂, 宁夏六盘山, 海拔2 300 m, 1980-07-15, 李法圣采; 1 ♀, 1 ♂, 甘肃夏河县拉卜楞寺 (35°12'N, 102°31'E; 海拔2 920 m), 2010-07-12, 李泽建、王晓华采; 1 ♀, 甘肃天祝乌稍岭林场, 2007-07-16, 唐铭军采; 2 ♀♀, 2 ♂♂, 甘肃岷县, 1982-07-03, 采集人详; 1 ♂, 甘肃临洮八里铺, 1982-07-09, 张陞采; 1 ♀, 甘肃祁连山龙沟, 2004-06-23, 王锋采; 1 ♂, 陕西嘉陵江源头 (34°13'N, 106°59'E; 海拔1 617 m), 2007-07-14, 朱巽采; 1 ♀, 1 ♂, 四川峨山, 海拔3 000 m, 2001-07-16, 魏美才采。

分布: 中国 (山西、河北、天津、甘肃、宁夏、

陕西、湖北、四川)。

词源: 新种种名由拉丁词前缀 *para*-以及 *obsoleta* 组成, 因其与 *Tenthredo obsoleta* Klug 十分近似。

鉴别特征 新种虫体背侧主要黑色, 腹侧具丰富绿色斑纹, 触角窝上突隆起度较窄且稍高, 因此隶属于 *Tenthredo obsoleta-mesomela* 种团的 *obsoleta* 亚种团。新种与光胸高突叶蜂 *Tenthredo obsoleta* Klug, 1817 十分近似, 但新种中胸前侧片光泽微弱, 刻纹明显; 头部背侧无明显光泽, 皱刻纹细密; 锯腹片中部第 5~6 锯刃刃间距等宽于锯刃, 中部锯刃齿式为 1/8 (后者中胸前侧片光泽强, 无明显刻纹; 头部背侧特别是上眶光泽强, 刻纹不明显; 锯腹片中部第 5~6 锯刃刃间距短于相邻锯刃, 中部锯刃齿式为 1/13~1/14)。

2 粗纹低突叶蜂, 新种 *Tenthredo pseudomesomela* Wei et Li, sp. nov. (图 13~24)

雌虫 体长 12~13 mm (图 13)。体和足黑色, 口须、上颚基半部、上唇、唇基除基部中央小黑斑外、唇基上区全部、触角窝上突、后眶大部、前胸背板后缘及侧角大班和前角大班、翅基片、中胸小盾片前部 4/5、小盾片附片及侧脊、淡膜区、后胸小盾片大部、后胸后背片基部约 1/2 及两侧脊、中胸前侧片上部前侧宽条斑 (约等宽于中部黑色条斑) 及后缘窄条斑 (约 0.5 倍于中部黑条斑)、中胸腹板除中央亚三角形斑外、中胸后侧片后侧大部、后胸前侧片大部、后胸后侧片后缘、腹部第 1~4 背板后缘窄边、第 10 背板端部、各节背板缘折全部、腹板全部和锯鞘绿色; 足黄绿色, 前中足基节基缘狭边和后侧不规则斑纹、后足基节腹侧和背侧条斑、各足转节背侧、各足股胫跗节后背侧黑色。体毛黑褐色, 上颚基半部、上唇和唇基体毛银褐色; 锯鞘毛黑褐色。翅淡烟灰色透明, 无烟斑, 翅痣暗褐色, 翅脉黑褐色。

头部背侧 (图 15) 大部暗淡, 光泽弱, 刻点较粗大, 刻纹粗密; 内眶中下部、后眶具稍明显的光泽, 刻纹稍弱; 触角窝上突和唇基光泽较强, 无明显刻纹; 中胸背板无光泽, 刻点较头部细小、密集, 刻点间刻纹致密; 前胸背板后角刻纹较弱, 有光泽; 中胸小盾片大部光滑, 具明显光泽, 刻纹细弱模糊; 小盾片附片较光亮, 刻点浅弱, 刻纹不明显; 后胸小盾片光泽弱, 刻点与刻纹较明显; 中胸前侧片黑色部分光泽微弱, 具粗密刻纹, 绿色部分刻纹较弱, 有弱光泽; 中胸后上侧片凹部光泽较强, 无明显刻点, 刻纹细弱; 中胸后下侧片大部区域具少许浅弱刻纹; 后胸前侧片光泽较明显, 刻纹细弱, 后胸后

侧片大部光滑, 刻纹微弱, 光泽较强 (图 18)。腹部各节背板光泽微弱, 刻点细弱、模糊, 刻纹细密; 锯鞘端的侧面具细弱皮质刻纹, 光泽弱。

头部背侧、小盾片和中胸前侧片上部细毛长度约 1.7 倍于侧单眼直径, 中胸背板侧叶细毛 0.6 倍于侧单眼直径。上唇平坦, 宽大于长, 端缘弧形突出; 唇基微弱隆起, 基部明显宽于复眼内缘下端间距, 前缘缺口宽浅弧形, 深度约为唇基长的 0.25 倍, 侧叶端缘圆钝 (图 16); 颞眼距约 0.65 倍于中单眼直径; 复眼内缘向下强烈收敛, 间距 0.55 倍于复眼高; 触角窝上突明显隆起, 向后微弱分歧, 后端稍陡峭, 突然中断, 背面长度约 1.5 倍于自身高度, 0.5 倍于额区长, 间距 0.6 倍于自身宽度; 单眼中沟和后沟均细深; 单眼后区微弱隆起, 宽约 1.65 倍于长, 无中纵脊, 侧沟较细, 稍弯曲, 向后明显分歧; 背面观上眶约 0.85 倍于复眼长, 两侧缘向后明显收缩; 后颊脊发达, 全缘式, 下部无褶皱。触角粗短丝状, 约等长于头胸部之和, 约 0.7 倍于腹部长; 第 2 节长约 1.25 倍于宽, 第 3 节约 1.5 倍于第 4 节长, 约 0.75 倍于第 4~5 节长度之和, 鞭节亚端部不膨大, 端部 4 节微弱短缩, 末端节不明显变细, 第 8 节长宽比约等于 2 (图 17)。中胸小盾片圆钝隆起, 宽明显大于长, 无中脊和顶点, 后缘横脊微弱, 几乎等高于中胸背板平面; 附片中纵脊低短; 后胸小盾片无中纵脊; 中胸前侧片中部低钝角状隆起; 后胸后侧片后缘圆钝, 无附片; 淡膜区间距约 3.5 倍于淡膜区宽。后足胫节 0.95 倍于跗节长, 内端距约 0.55 倍于后足基跗节长; 后基跗节约 0.65 倍于其后 4 跗分节之和; 爪内无基片, 内齿明显短于外齿。锯鞘 1.6 倍于后足基跗节长, 锯鞘端约 1.3 倍于锯鞘基长, 锯鞘侧面观较窄长, 端缘圆钝 (图 19); 背面观锯鞘毛夹角约 90°~100°, 端部明显弯曲。前翅 cu-a 脉位于 1M 室基部 0.3 处, 2r 脉交于 2Rs 室外侧 1/3, 2Rs 室明显长于 1Rs 室; 后翅臀室无柄式, 或具点状短柄。雌虫锯腹片较短, 具 13 锯刃 (图 21), 中部锯刃无内侧亚基齿, 具 11~14 个外侧亚基齿, 无明显节缝刺毛带, 基部起第 4~6 锯刃 (图 22)。

雄虫 体长 11~12 mm (图 14), 体色与构造类似雌虫, 但中胸腹板大部黄绿色, 颞眼距 0.4 倍于侧单眼直径, 复眼下缘间距狭窄 (图 20), 约 0.4 倍于复眼高; 下生殖板长稍大于宽, 端缘圆弧形; 抱器长约 1.5 倍于宽, 中部稍宽于两端 (图 23); 阳茎瓣 (图 24)。

正模 ♀, 河北雾灵山歪桃峰 (40° 35' N, 117° 28' E; 海拔 2 067 m), 2007-06-16, 李泽建采。

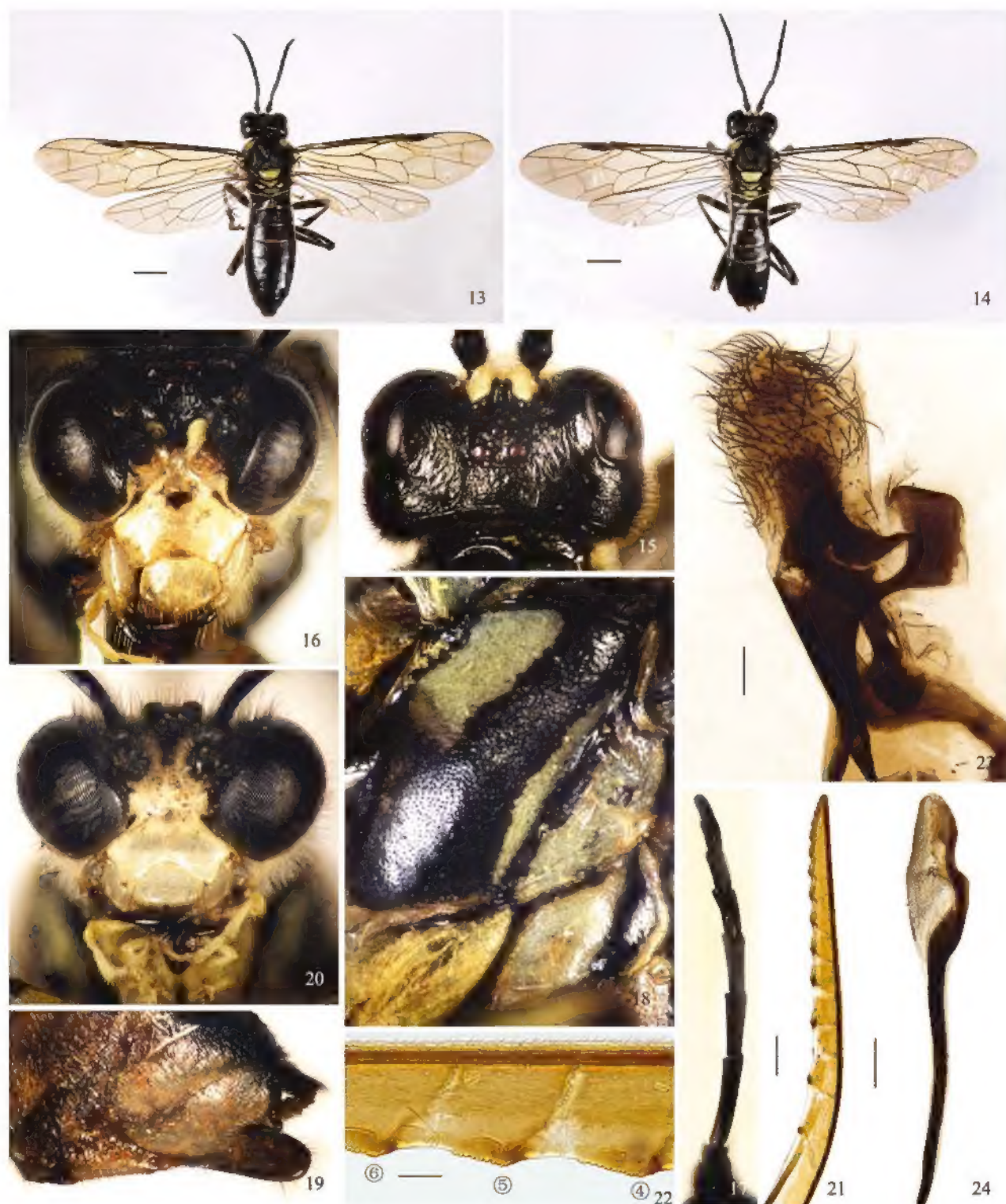


图 13~24 粗纹低突叶蜂, 新种 *Tenthredo pseudomesomela* Wei et Li, sp. nov.

13, 15~18. 雌 (female) 14, 20. 雄 (male) 13~14. 成虫背面观 (adult, dorsal view) 15~16, 20. 头部 15. 背面观 (dorsal view) 16, 20. 前面观 (front view) 17. 触角 (antenna) 18. 中胸侧板和后胸侧板 (mesopleuron and metapleuron) 19. 锯鞘侧面观 (ovipositor sheath, lateral view) 21. 锯腹片 (lancet) 22. 锯腹片第 4~6 锯齿 (4th~6th serrulae) 23. 生殖铗 (gonoforceps) 24. 阳茎瓣 (penis valve) 比例尺 (scale bars): 13~14 = 2 mm, 21, 23~24 = 200 μm, 22 = 50 μm

副模: 2 ♂♂, 河北雾灵山歪桃峰, (40°35'N, 117°28'E; 海拔 2 067 m), 2007-06-16, 李泽建采; 1 ♀, 河北小五台东灵山 (40°02'N, 115°27'E; 海拔

1 850 m), 2009-06-28, 王晓华采; 2 ♀♀, 河北小五台山赤崖堡 (39°59'N, 115°01'E; 海拔 1 485 m), 2008-07-25, 李泽建采; 3 ♀♀, 河北小五台山西沟门

(39°59'N, 115°01'E; 海拔1607 m), 2008-07-22, 李泽建采; 1♂, 山西历山皇姑幔 (35°21'N, 111°56'E; 海拔2090 m), 2009-06-12, 王晓华采; 1♀, 1♂, 山西历山皇姑幔 (35°21'N, 111°56'E; 海拔2090 m), 2009-06-13, 王晓华采; 1♀, 河北小五台山西沟门 (39°59'N, 115°01'E; 海拔1607 m), 2008-07-23, 李泽建采; 1♀, 河北小五台山赤崖堡 (39°59'N, 115°01'E; 海拔1485 m), 2008-07-24, 李泽建采; 1♀, 河北兴隆雾灵山, 海拔1700 m, 1995-06-22, 吕楠采。

分布: 中国 (山西、河北)。

词源: 新种种名由拉丁前缀 *pseudo*-及 *mesomela* 组成, 因本种与 *Tenthredo mesomela* (L., 1758) 十分近似, 故以此命名。

鉴别特征 新种虫体背侧主要黑色, 腹侧具丰富绿色斑纹。触角窝上突隆起度较低, 后端中断, 因此隶属于 *Tenthredo obsoleta-mesomela* 种团的 *mesomela* 亚种团, 并与狭域低突叶蜂 *Tenthredo mesomela* (L., 1758) 十分近似, 但新种的中胸前侧片黑色, 前后侧各具1窄长绿色条斑, 中部黑色纵条斑宽度约2倍于后缘绿色纵条斑宽度; 中胸腹板大部黑色, 中央少部黄绿色; 中胸前侧片的黑色部分光泽微弱, 具显著刻纹; 头部背侧刻纹显著, 光泽弱; 阳茎瓣头叶腹侧中部缺口十分宽浅 (后者中胸前侧片绿色, 中部具狭窄黑色纵条斑, 该条斑约0.5倍于后侧绿色纵条斑宽; 中胸腹板全部绿色; 中胸前侧片光泽强烈, 刻纹微弱, 表面几乎光滑; 头部上眶大部光滑, 刻纹不明显, 光泽强; 阳茎瓣头叶腹侧中部缺口较窄深)。

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